

HOUSE PRICES PREDICTIONS

IST 719: Information Visualization | Rahul Patel

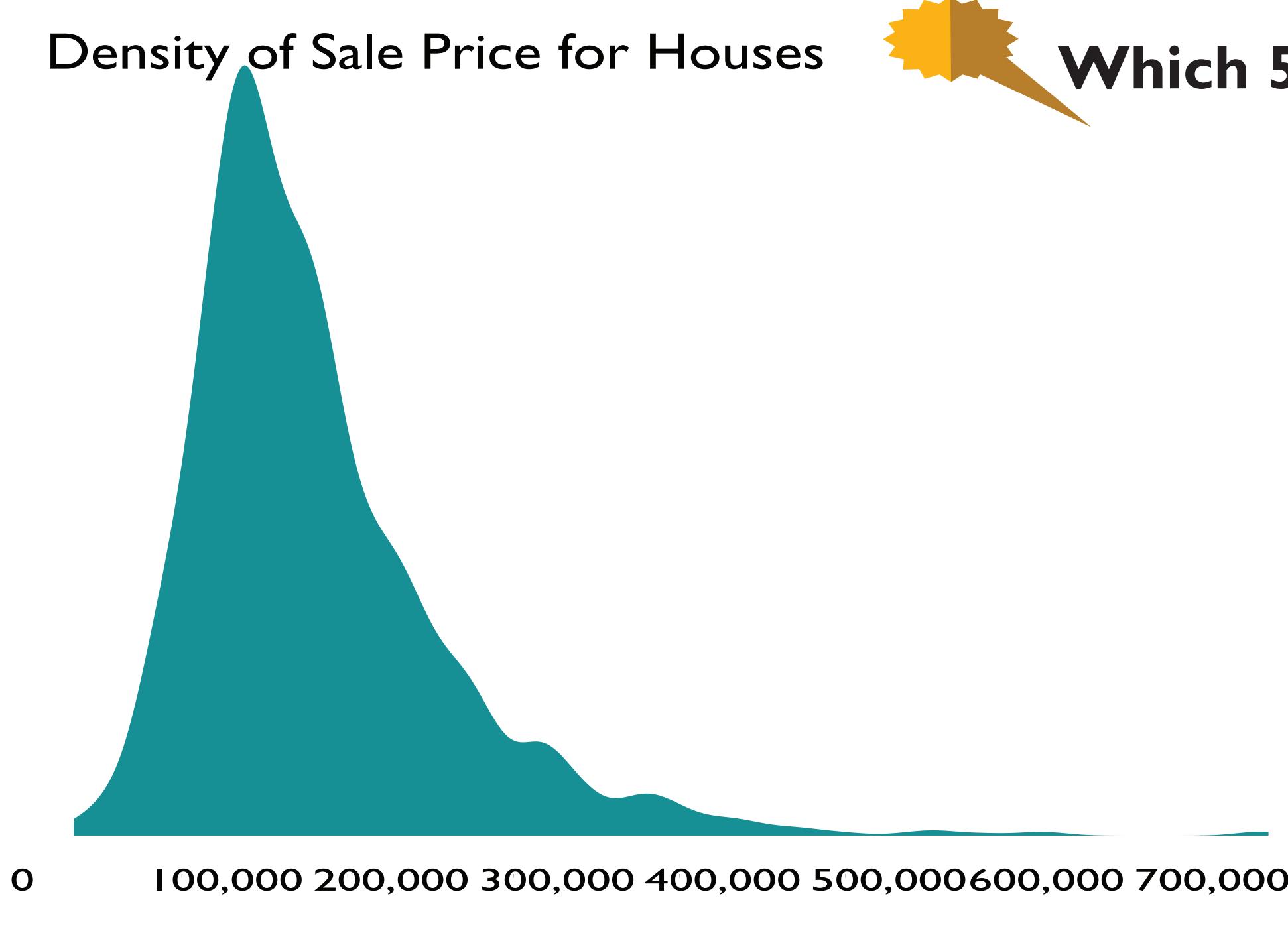


As a home buyer, finding the perfect home rarely happens and thus it would be great if there is an informed choice before one buys their dream house. Thus, we need to dive deeper for getting minute details and find a house that satisfies all of the criterias for a buyer. Below, we explore some of the major aspects taken into consideration while buying a house.

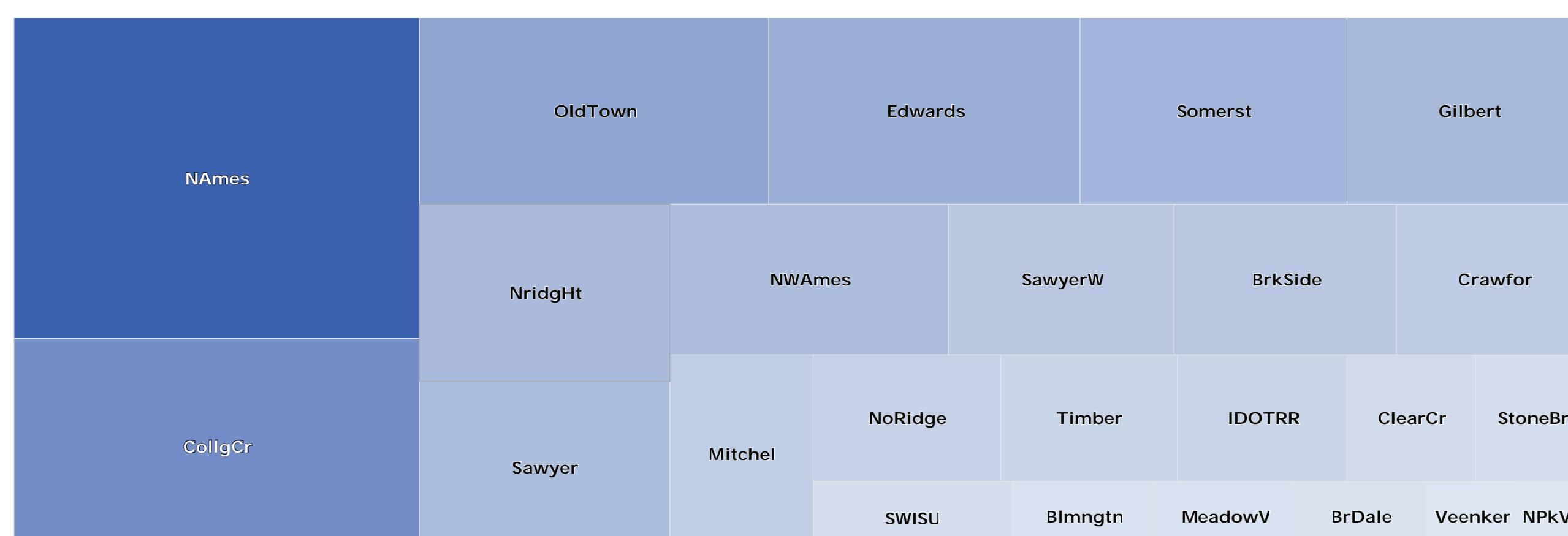
It is not feasible to start measuring the total area or height for each house visit. Also, the buyer is not aware of the average prices in a neighborhood. This data will answer a lot of such unachievable questions for the buyer and estimate a sale price of the house. This infographic only considers housing prices for Ames city of Iowa. It provides details about the relevant neighborhood and important parameters of a house, a buyer should look for to effectively compare different dimensions and take a final decision.

Data Description: This dataset consists of 79 numerical and categorical features for 1460 residential houses built in the Ames city. The dataset is very extensive, and the target variable is Sale Price of the house based on several dependent and independent variables. The features consists of different areas of a house, number of rooms, its neighborhood, amenities provided and overall condition and quality of the house. Only the training dataset is taken and any null/NA values in the data is ignored by removing them.

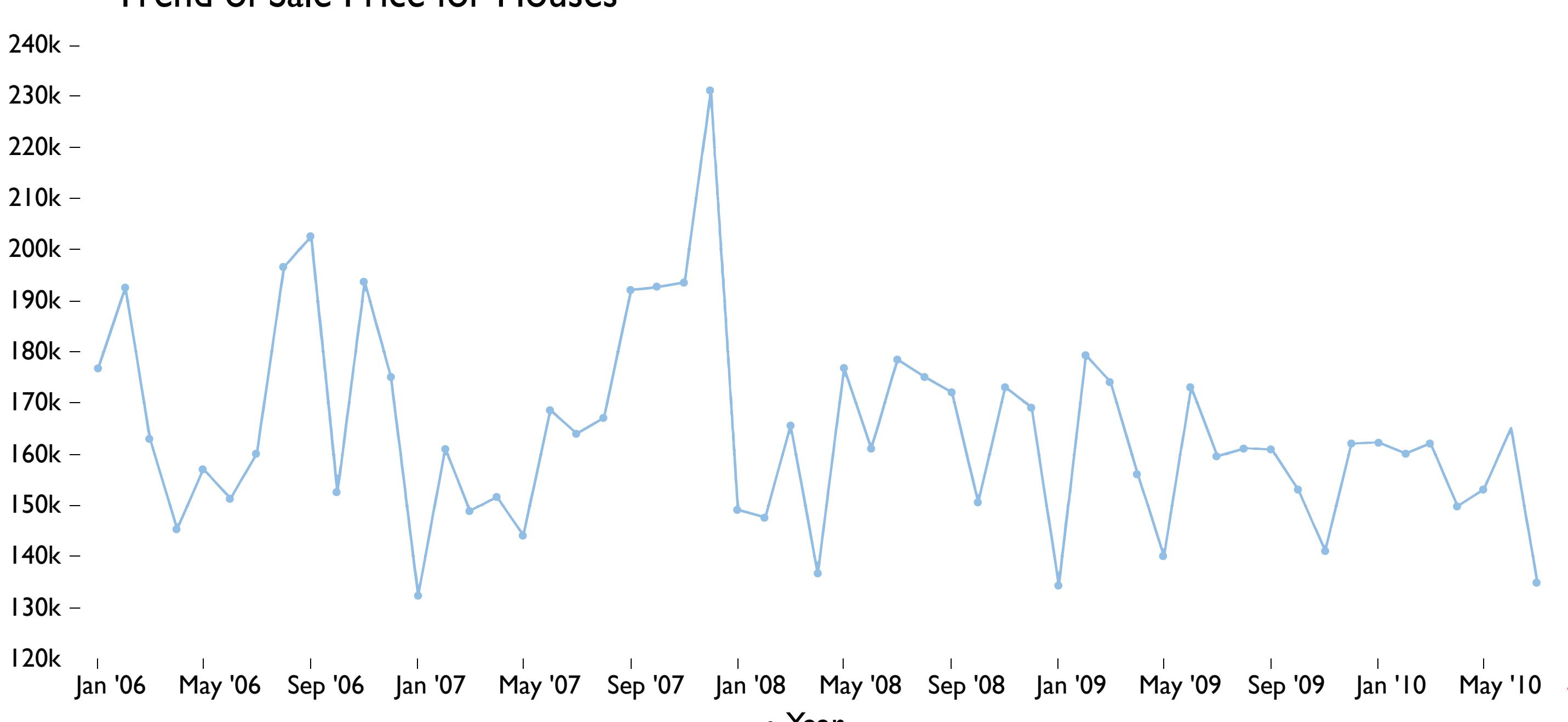
Density of Sale Price for Houses



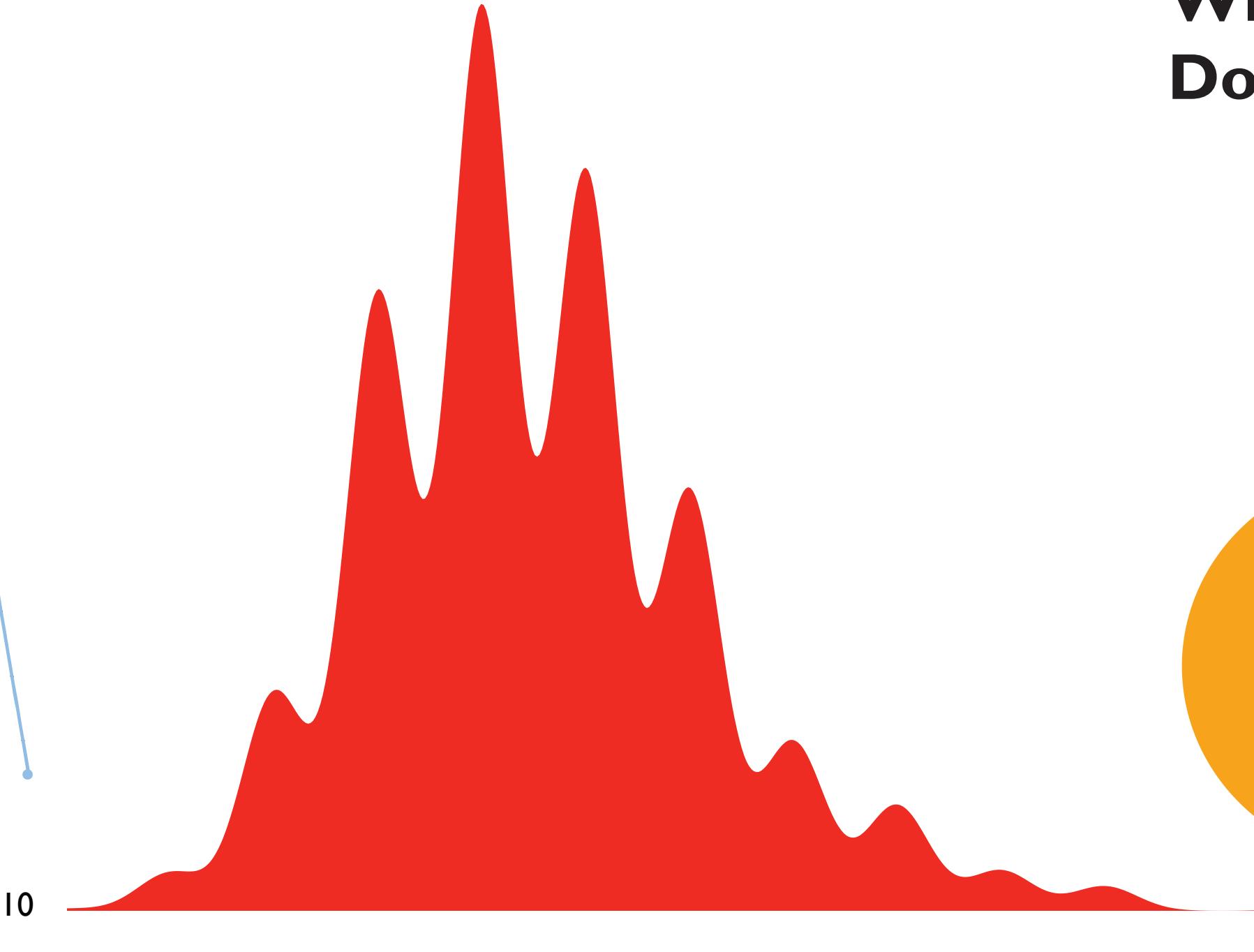
Which 5 neighborhood are frequent in selling houses? What is the number of houses sold in each Neighborhood?



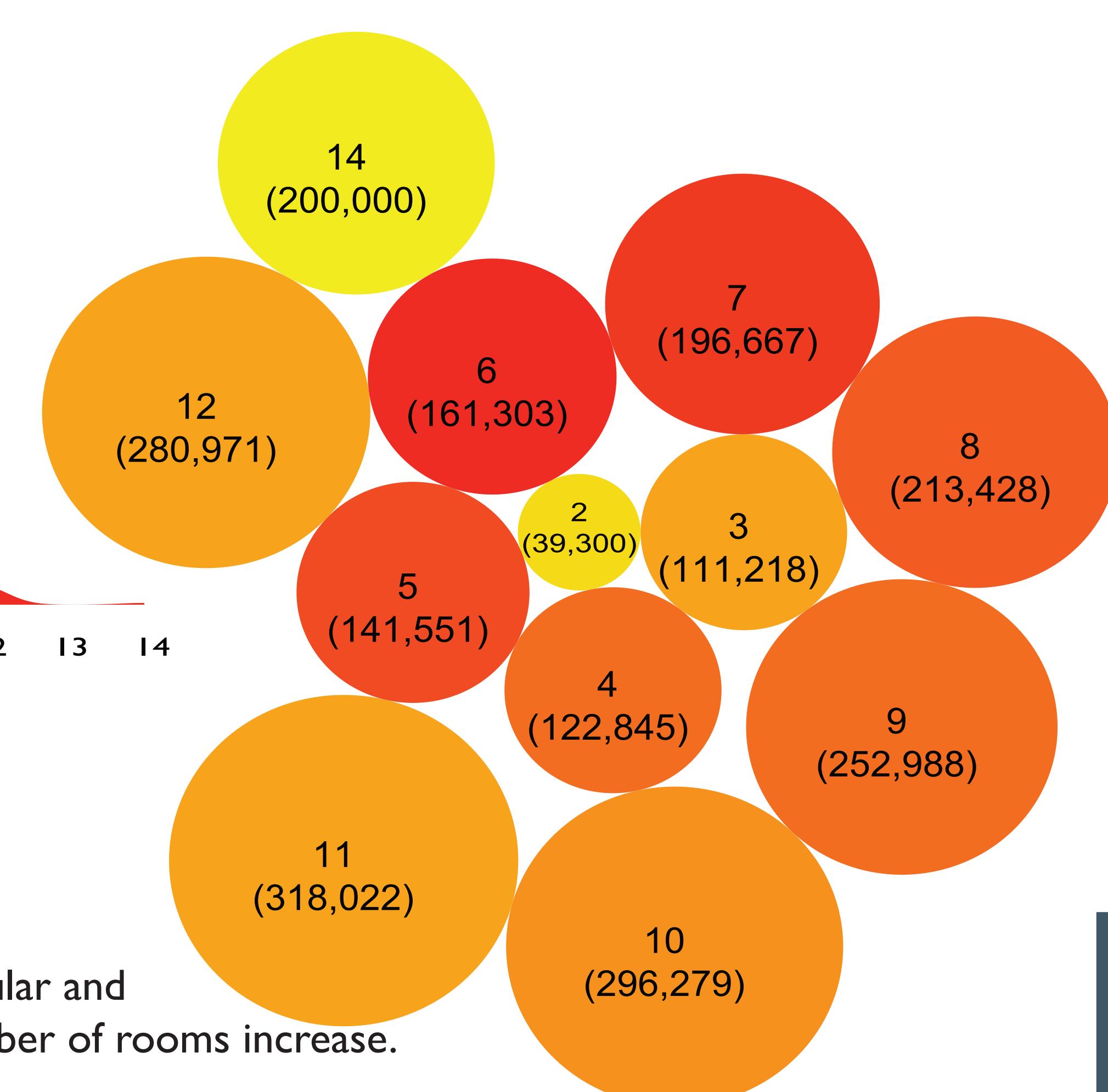
Trend of Sale Price for Houses



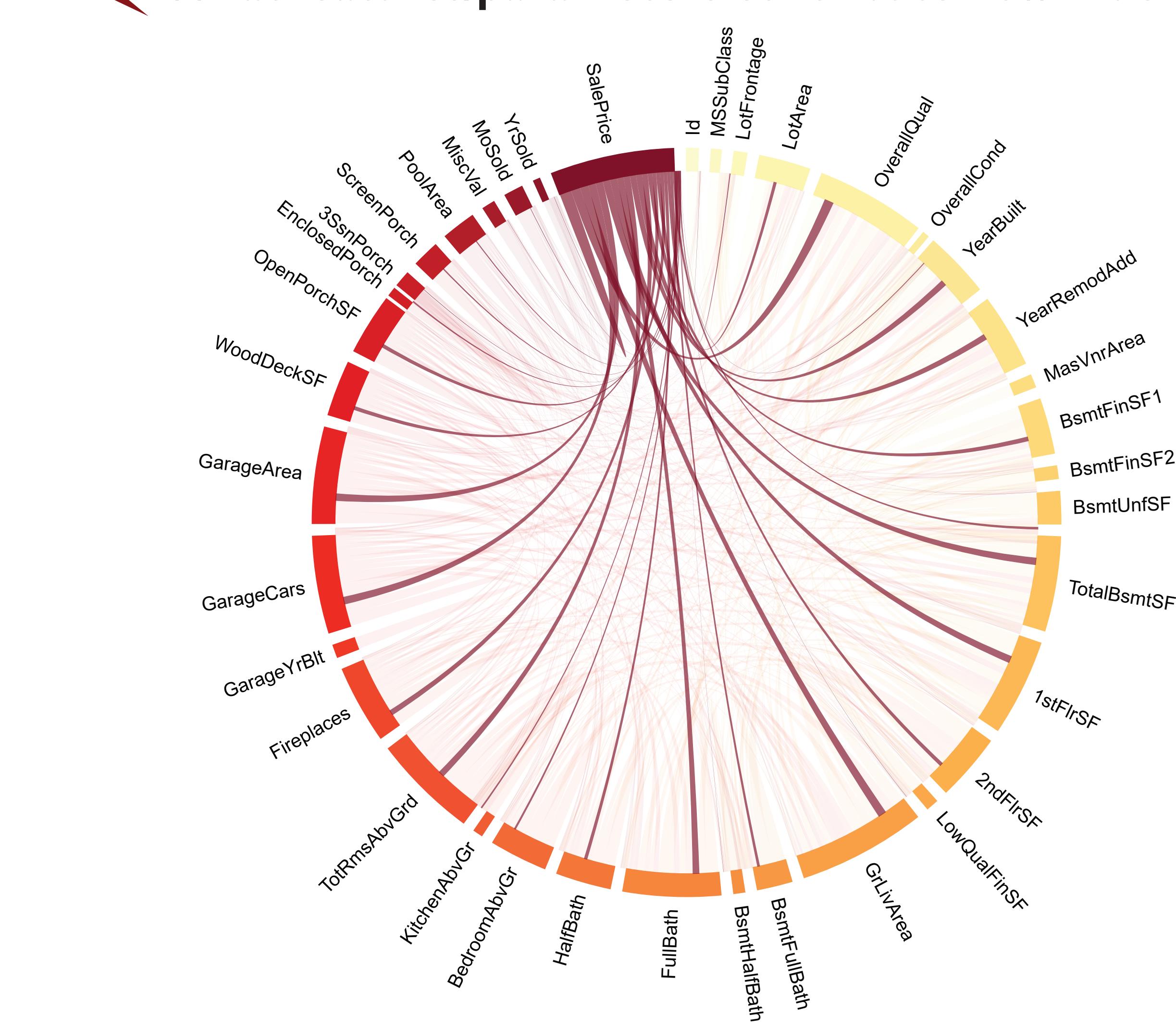
Density of Total Number of Rooms for a house



What is the average number of rooms in a house? Does it directly affect Sale Price of the house?



What features/parameters contribute how much to the sale price?



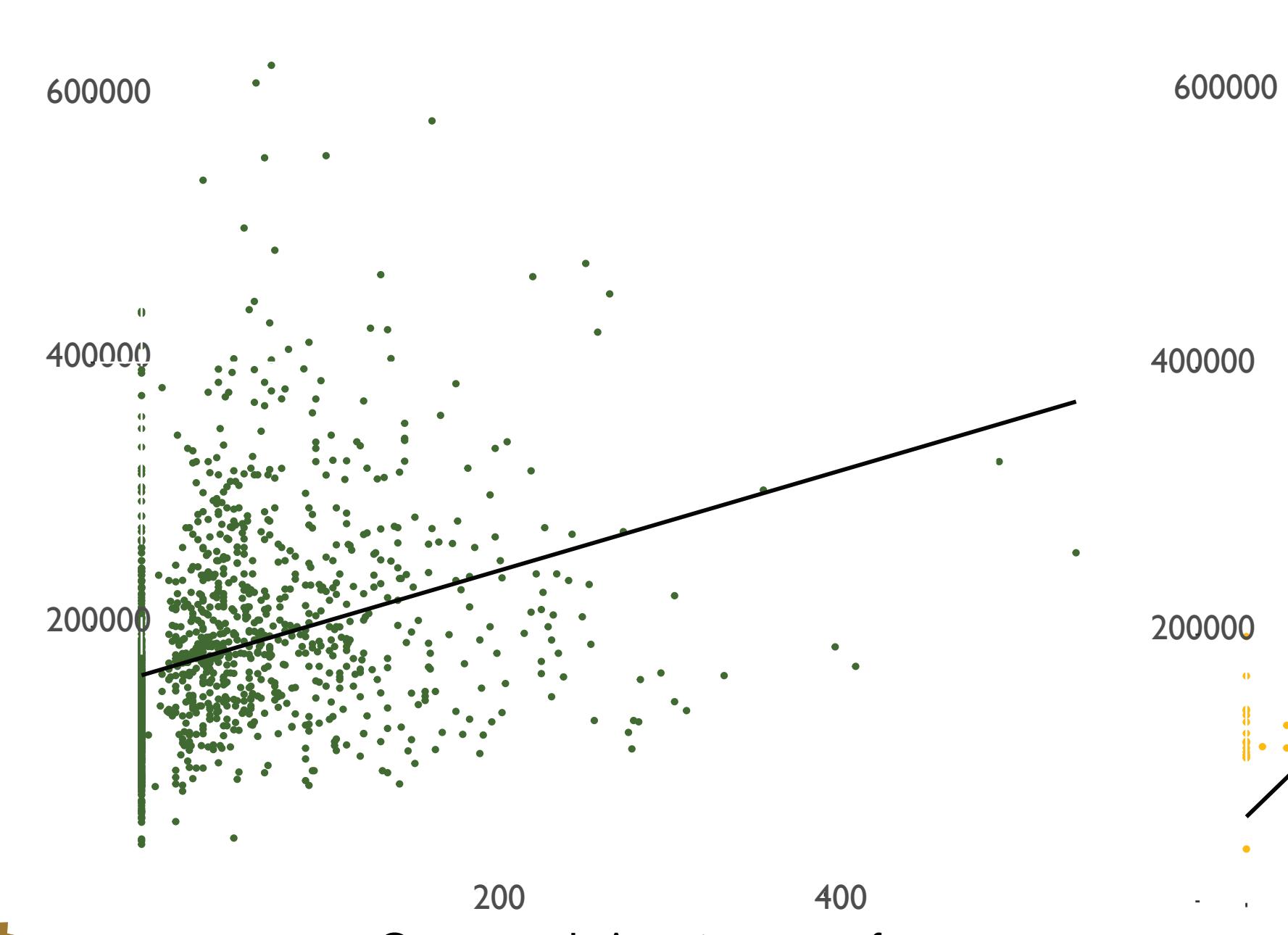
Houses with 4 to 8 rooms are extremely popular and common. Average Sale Price increases as number of rooms increase.

Important parameters that decide the price include different areas in a house like garage, basement, living area, etc. Also the year house was built and remodelled, basic amenities and number of floors in a house.

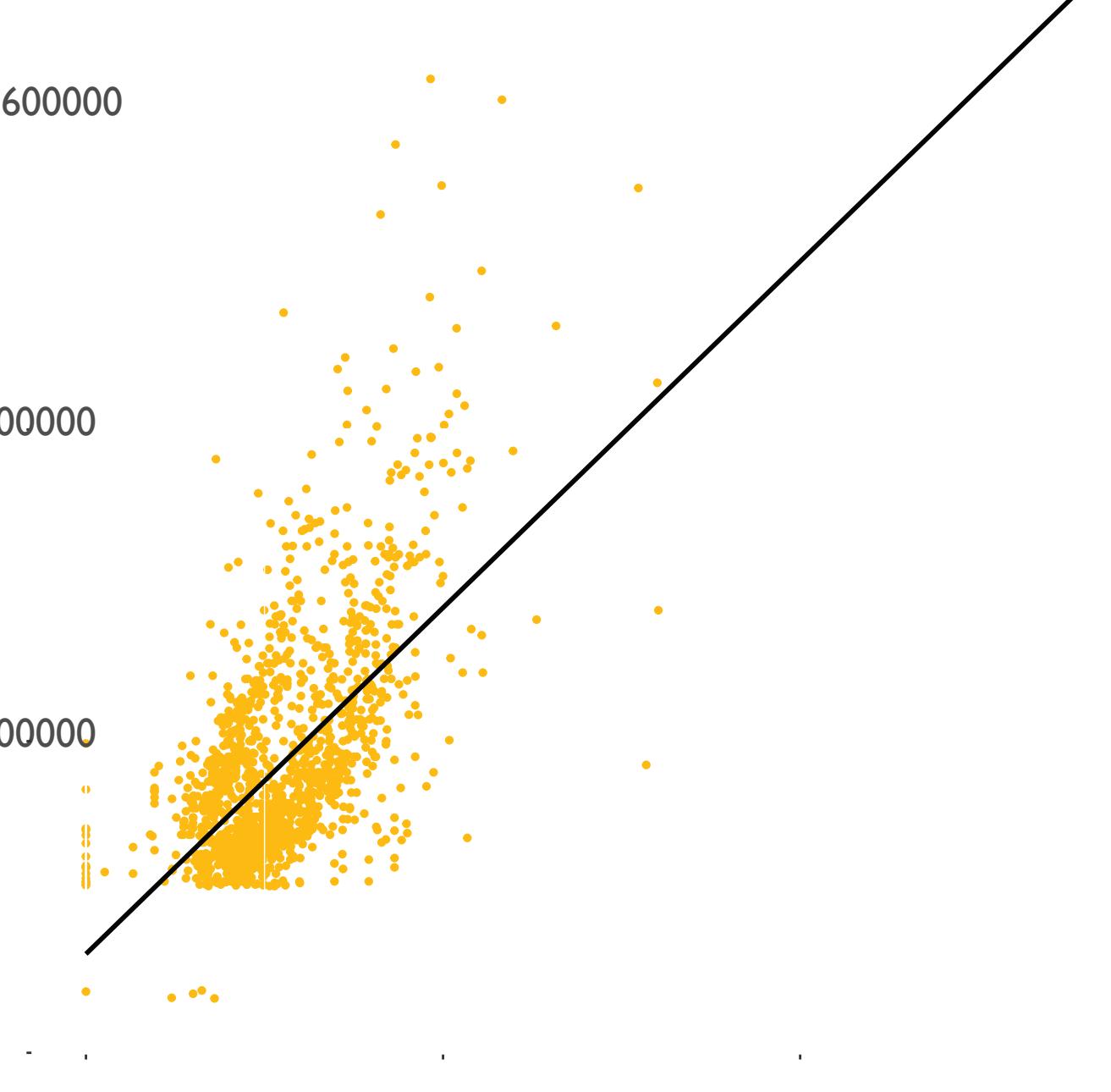
What different housing areas really matter and affect the sale price?

On comparing the different areas in a house, the four most important areas include porch, basement, garage and living area. Below graph indicates positive linear relationship between sale price and different areas

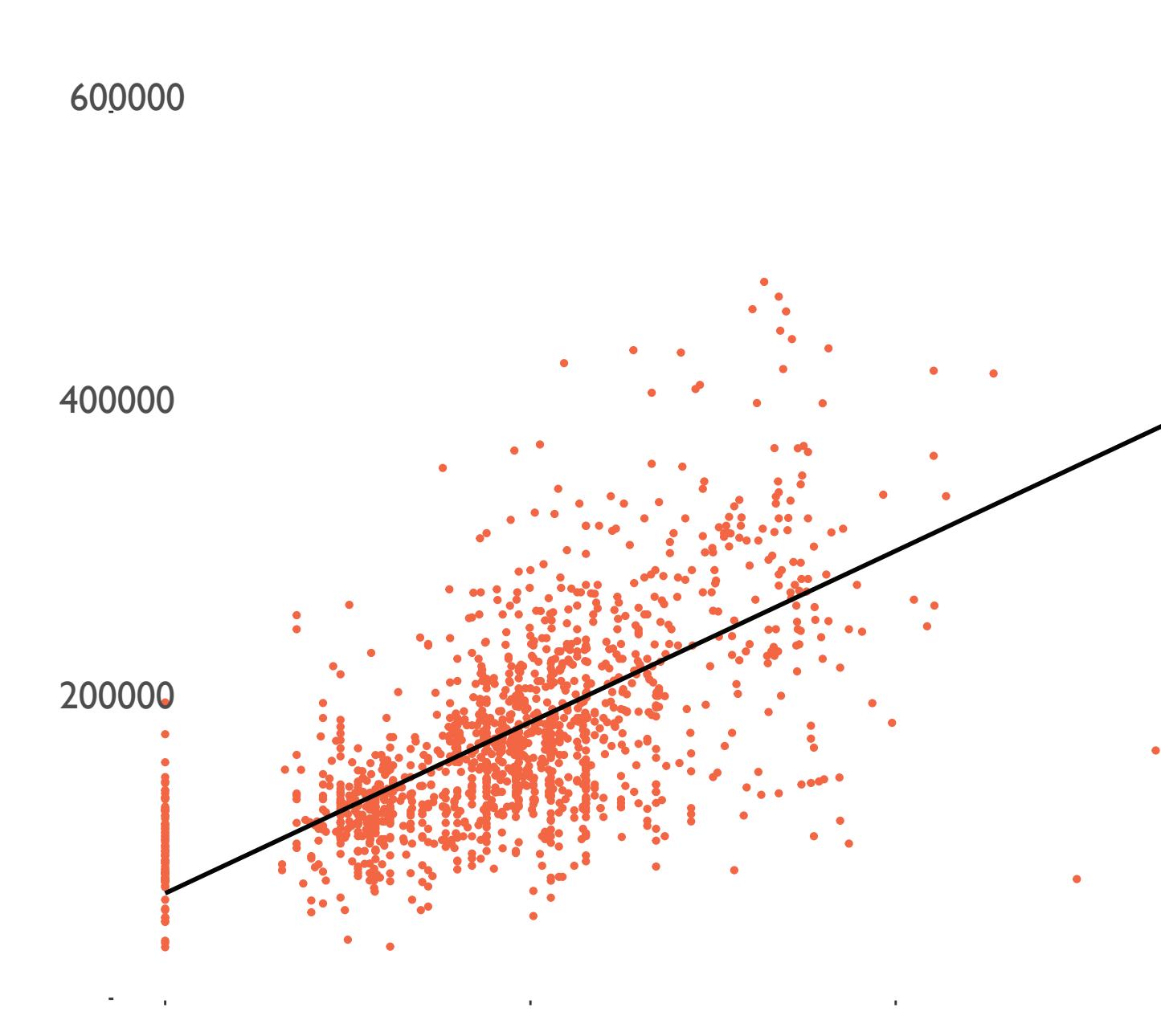
SalePrice



SalePrice



SalePrice



SalePrice

